

Response to 4/19/05 Office Action

**AMENDMENTS TO THE CLAIMS**

**Pending Claims:**

At the time of the 4/19/05 Office Action:

2-9, 11-13, and 15-31.

As a result of the present communication:

2-9, 11-13, 15-29, and 31.

**Amended Claims:**

In the present communication:

None.

**New Claims:**

None.

**Cancelled Claims:**

In the present communication:

30.

Previously:

1, 10, and 14.

1. (Cancelled)

2. (Previously presented) A process for color printing an image with angled half tone screens and a colorant set that includes Cyan, Magenta, Yellow and Black colorants and at least one other colorant comprising:

choosing the at least one other colorant so that one of the at least one other colorant is a colorant having a hue angle intermediate the hue angles of Cyan and Magenta;

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assigning a screen angle to each of the colorants in the colorant set:

providing an angled half tone screen for each of the colorants of the colorant set responsive to a color separation of the image; and

using the angled half tone screens to produce a color printing of the Image,

wherein the number of colorants in the colorant set is odd and assigning a screen angle to each of the colorants of the colorant set comprises assigning black a first screen angle, assigning one half of said non-black colorants a second screen angle and one half of said non-black colorants a third screen angle, wherein said first, second and third screen angles are different and wherein non-black colorants having adjacent hue angles are assigned different screen angles.

3. (Previously presented) A process for color printing an image with angled half tone screens and a colorant set that includes Cyan, Magenta, Yellow and Black colorants and at least one other colorant comprising:

choosing the at least one other colorant so that one of the at least one other colorant is a colorant having a hue angle intermediate the hue angles of Cyan and Magenta;

assigning a screen angle to each of the colorants in the colorant set;

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providing an angled half tone screen for each of the colorants of the colorant set responsive to a color separation of the image; and

using the angled halftone screens to produce a color printing of the image,

wherein the number of colorants in the colorant set is even and assigning a screen angle to each of the colorants of the colorant set comprises assigning black a first screen angle, assigning one half of said colorants that are neither black or yellow a second screen angle and one half of said colorants that are neither black or yellow a third screen angle, wherein yellow is assigned a fourth screen angle, wherein said first, second, third and fourth screen angles are different and wherein non-black colorants having adjacent hue angles are assigned different screen angles.

4. (Original) A process according to claim 3 wherein choosing the at least one other colorant comprises choosing two colorants.

5. (Previously Presented) A process according to claim 3 wherein the difference between said fourth screen angle and said first screen angle is 45°.

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6. (Previously Presented) A process according to claim 2 wherein the angle between said first screen angle and either of said second and third screen angles is substantially  $30^\circ$  and the angle between said second and said third screen angles is substantially  $30^\circ$ .

7. (Original) A process according to claim 6 wherein said first screen angle is  $45^\circ$ , one of said second and third screen angles is  $15^\circ$  and the other of said second and third screen angles is  $75^\circ$ .

8. (Original) A process according to any of the previous claims wherein choosing the at least one other colorant so that one of the at least one other colorant is a colorant having a hue angle intermediate the hues angles of Cyan and Magenta comprises choosing a colorant substantially exterior to the gamut of hues provided by said Cyan, Magenta, Yellow and Black colorants.

9. (Previously Presented) A process according to any of claims 2-7 wherein choosing the at least one other colorant so that one of the at least one other colorant is a colorant having a hue angle intermediate the hue angles of Cyan and Magenta comprises choosing violet.

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10. (Cancelled)

11. (Previously Presented) A process according to any of claims 2-7 wherein choosing the at least one other colorant comprises choosing at least two other colorants and wherein one of the at least two other colorants is Orange.

12. (Previously Presented) A process according to any of claims 4--s 2-7 wherein Cyan and Magenta have the same screen angles.

13. (Previously Presented) A color printing of an image produced using a process according to any of claims 2-7.

14. (Cancelled)

15. (Previously Presented) A colorant set for color printing with angled half tone screens comprising:

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at least five colorants including Cyan, Magenta, Yellow and Black colorants; and at least one colorant have a hue angle intermediate the hue angles of Cyan and Magenta,

wherein the number of the at least five colorants is odd wherein said black colorant has a first screen angle, wherein one half of said non-black colorants have a second screen angle and one half of said non-black colorants have a third screen angle, wherein said first, second and third screen angles are different and wherein non-black colorants having adjacent hue angles have different screen angles.

16. (Previously Presented) A colorant set for color printing with angled halftone screens comprising;

at least five colorants including Cyan, Magenta, Yellow and Black colorants; and at least one colorant have a hue angle intermediate the hue angles of Cyan and Magenta,

wherein the number of the at least five colorants is even, wherein said black colorant has a first screen angle, wherein one half of said colorants that are neither black or yellow have a second screen angle and one half of said colorants that are neither black or yellow have a third screen angle, wherein yellow has a fourth screen angle, wherein said first, second, third and fourth

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screen angles are different and wherein non-black colorants having adjacent hue angles have different screen angles.

17. (Original) A colorant set according to claim 16 wherein the number of the at least five colorants is six.

18. (Previously Presented) A colorant set according to claim 16 wherein the difference between said fourth screen angle and said first screen angle is  $45^{\circ}$ .

19. (Previously Presented) A colorant set according to claim 15 wherein the angle between said first screen angle and either of said second and third screen angles is substantially  $30^{\circ}$  and the angle between said second and said third screen angles is substantially  $30^{\circ}$ .

20. (Original) A colorant according to claim 19 wherein said first screen angle is  $45^{\circ}$ , one of said second and third screen angles is  $150^{\circ}$  and the other said second and third screen angles is  $75^{\circ}$ .

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21. (Previously Presented) A colorant set according to any of claims 15-20 wherein the at least one colorant having a hue angle intermediate the hue angles of Cyan and Magenta is a colorant substantially exterior to the gamut of hues provided by said Cyan, Magenta, Yellow and Black colorants.

22. (Previously Presented) A colorant set according to any of claims 15-20 wherein said at least one colorant having a hue angle intermediate the hue angles of Cyan and Magenta comprises one colorant.

23. (Previously Presented) A colorant set according to any of claims 15-20 wherein at least one of said at least one colorant having a hue angle intermediate the hue angles of Cyan and Magenta is Violet.

24. (Previously Presented) A colorant set according to any of claims 15-20 wherein at least one of said at least one colorant having a hue angle intermediate the hue angles of Cyan and Magenta is Purple.

25. (Previously Presented) A colorant set according to any of claims 15-20 comprising at least 6 colorants wherein one of the colorants is Orange.



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26. (Previously Presented) A colorant set according to any of claims 15-20 wherein Cyan and Magenta have the same screen angles.

27. (Previously Presented) A process for color printing an image with angled halftone screens and a colorant set that includes Cyan, Magenta, Yellow and Black colorants and at least one other colorant comprising:

choosing the at least one other colorant so that one of the at least one other colorant is a colorant having a hue angle intermediate the hue angles of Cyan and Magenta;

assigning a screen angle to each of the colorants in the colorant set;

providing an angled half tone screen for each of the colorants of the colorant set responsive to a color separation of the image; and

using the angled half tone screens to produce a color printing of the Image,

wherein choosing the at least one other colorant so that one of the at least one other colorant is a colorant having a hue angle intermediate the hues angles of Cyan and Magenta comprises choosing a colorant substantially exterior to the gamut of hues provided by said Cyan, Magenta, Yellow and Black colorants.

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28. (Previously Presented) A process for color printing an image with angled half tone screens and a colorant set that includes Cyan, Magenta, Yellow and Black colorants and at least one other colorant comprising:

choosing the at least one other colorant so that one of the at least one other colorant is a colorant having a hue angle intermediate the hue angles of Cyan and Magenta;

assigning a screen angle to each of the colorants in the colorant set;

providing an angled half tone screen for each of the colorants of the colorant set responsive to a color separation of the image; and

using the angled halftone screens to produce a color printing of the image,

wherein choosing the at least one other colorant so that one of the at least one other colorant is a colorant having a hue angle intermediate the hue angles of Cyan and Magenta comprises choosing violet.

29. (Previously Presented) A colorant set for color printing with angled half tone screens comprising:

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at least five colorants including Cyan, Magenta, Yellow and Black colorants; and

at least one colorant have a hue angle intermediate the hue angles of Cyan and Magenta,

wherein the at least one colorant having a hue angle intermediate the hue angles of Cyan and Magenta is a colorant substantially exterior to the gamut of hues provided by said Cyan, Magenta, Yellow and Black colorants.

30. (Cancelled)

31. (Previously Presented) A process for color printing an image with angled halftone screens and a colorant set that includes Cyan, Magenta, Yellow and Black colorants and at least one other colorant comprising:

choosing the at least one other colorant so that one of the at least one other colorant is a colorant having a hue angle intermediate the hue angles of Cyan and Magenta;

assigning a screen angle to each of the colorants in the colorant set;

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providing an angled half tone screen for each of the colorants of the colorant set responsive to a color separation of the image; and

using the angled halftone screens to produce a color printing of the image,

wherein cyan and magenta have a same screen angle,